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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,762	11/10/2003	Daniel R. Caldwell	TI-36721 (032350.B574)	7834

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EXAMINER

NGUYEN, DUNG V

ART UNIT PAPER NUMBER

3723

DATE MAILED: 03/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/706,762

Applicant(s)

CALDWELL ET AL.

Examiner

Dung V Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-20 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6, 8, 11-16 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Melcer (USPN 6,183,341). Melcer discloses a chemical mechanical polishing monitoring system comprising a peristaltic pump 3 operable to delivery a slurry to a polishing pad 6, a controller 7 operable to send a signal to the peristaltic pump 3 based on a desired volumetric flow rate for the slurry, a rotation sensing device 9 coupled to the peristaltic pump 3 and operable to sense a rotation of the peristaltic pump 3, the rotation sensing device 9 operable to generate a signal indicating of the rotation of the peristaltic pump 3, a computer coupled to the rotation sensing device 9 and the controller 7, the computer operable to receive the signal from the controller 7, the rotation sensing device 9 in order to monitor the peristaltic pump 3 during use, wherein the pump 3 comprises a peristaltic pump, wherein the rotation sensing device 9 comprises an encoder, Melcer inherently discloses a chemical mechanical polishing method comprising sending a signal to a pump 3, delivering a slurry to a polishing pad 6 via the pump, sensing a rotation of the pump 3, generating a signal indicative of the rotation of the pump and comparing the signal in order to monitoring the pump 3 during use (note Fig. 1, col. 1, line 53 to col. 2, line 32, col. 2, line 48 to col. 3, line 23).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7, 9, 10, 17, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melcer (USPN 6,183,341). Melcer discloses the claimed invention as described above. Melcer does not disclose expressly that the rotation sensing device comprises a tachogenerator, a fiber optic detector or a digital counter. At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to use a tachogenerator, a fiber optic detector or a digital counter because Applicant has not disclosed that a tachogenerator, a fiber optic detector or a digital counter provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with an encoder, a tachogenerator, a fiber optic detector or a digital counter because each of them perform the same function of sensing the speed of the pump. Therefore, it would have been an obvious matter of design choice to modify Melcer to obtain the invention as specified in claims 7, 9, 10, 17, 19 and 20.

Response to Arguments

5. Applicant's arguments filed 10 January 2005 have been fully considered but they are not persuasive. In response to applicant's argument that Melcer reference does not

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describe a rotation sensing device that generates a signal indicative of the pump rotation, Melcer reference discloses in col. 3, lines 1-5 the limitations of claim 1 as follows: "The pump motor speed is monitored by the encoder 9 which senses the speed of the pump or its motor and transmits a corresponding signal representative of the pump speed to the pump controller" and the pump speed is defined in term of rotation per minute in col. 2, lines 5-8 as follows: "the pump speed required to maintain a specified flow rate is governed by the equation $RPM = M \times \text{Flow rate}$ ". Thus Melcer reference meets the limitations of claim 1. In response to applicant's argument that the examiner states that the limitations of claim 1 are inherent in the Melcer reference, in fact Melcer inherently discloses a chemical mechanical polishing monitoring method of claim 14, since Melcer's monitoring system anticipates a claimed method because the Melcer's system carries out the method during normal operation (see MPEP 2112.02 – Process claims).

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

7. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung V Nguyen whose telephone number is 571-272-4490. The examiner can normally be reached on M-F, 7:00-3:30.

9. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph J Hail can be reached on 571-272-4485. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DVN
March 18, 2005


DUNG VAN NGUYEN
PRIMARY EXAMINER